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Motivational interviewing (MI) is a brief counseling method that has been shown to reduce alcohol abuse and alcohol-related problems. This project focuses on the training of AF behavioral health providers in the motivational interviewing method, with behavioral coding to assess the success and cost-effectiveness of the training. In addition, this project will assess the impact of such enhanced training on the overall level of alcohol-related events. Sixty behavioral health providers have now been enrolled in this project. Fourteen providers have been trained in the MI method and two additional workshop trainings have been scheduled. The behavioral coding system that forms the outcome measure for this study has been pilot-tested and reliability estimates have been generated from a double-coded sample. Barriers to recruiting subjects due to military deployments have been addressed.

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INTRODUCTION

Motivational interviewing (1991, 2002) is a brief counseling method shown to decrease alcohol consumption in at-risk drinkers (Burke, Arkowitz & Dunn, 2002; Noonan & Moyers, 1997). Previous research indicates this clinical method can be acquired by providers of diverse training and theoretical backgrounds (Miller, Yahne, Moyers, Martinez & Pirritano, 2003). This dissemination study will investigate the hypothesis that competence in motivational interviewing can be acquired by Air Force Behavioral Health Providers (AFBHP) through a standard workshop training experience. We further hypothesize that AFBHP's who receive enrichments to this training, in the form of structured behavioral coding of session tapes as well as consult telephone calls, will show enhanced competence in this clinical method. Finally, we intend to investigate the relative cost-effectiveness of this enhanced training compared to the workshop-only training and compare both to a self-directed learning condition (which approximates the usual way in which treatments are disseminated within the Air Force ADAPT programs). Audiotaped practice samples of all participants will be evaluated with a structured behavioral coding system, the Motivational Interviewing Skills Code (MISC) (Moyers, Martin, Catley, Harris & Ahluwalia, 2001) at 4 month intervals after training to yield outcome measures of competence in motivational interviewing. Comparisons among the three training conditions will allow investigation of the needed level of intensity to acquire MI among AFBHP's. Comparison of alcohol-related incident across bases where training has been received and those where it has not will allow us to evaluate the possibility that training in motivational interviewing will have an impact on the overall level of alcohol-related incidents at Air Force bases.

BODY

Several important goals have been accomplished in this project during the review year. They are:

IRB Approval: A significant accomplishment of this project for this review period involved the successful procurement of IRB approval across the following institutions: The University of New Mexico, the AF Surgeon General's Office, the U.S. Army Medical and Material Command and the Wilford Hall Medical Center (AF). The result of this effort has been the approval (after multiple revisions) of the protocol for this study and ability to recruit humans subjects across all Air Forces bases worldwide, with oversight via a single IRB (Wilford Hall), thereby eliminating the need to obtain approval from regional AF IRB's. This is the first time within the AF that oversight approval has been ever been allotted for a *behavioral research project*, representing a substantial achievement for future behavioral researchers in this military branch. This approval process, even though substantially abbreviated by the elimination of regional AF IRB approvals, required 18 months time from beginning to end. The final review was approved in February of 2003.

Security Clearance for Administrative Assistant: A second accomplishment, critical to the success of the project, involved the approval of the administrative assistant hired for this study, working within the Surgeon General's office. Security check, computer approval and e-mail access for this person (Karin Cedro) required 9 months from beginning to end.

Training of Behavioral Health Providers: The first of four trainings for behavioral health providers was scheduled for April of 2003. Hotel contracts were issued and trainers were hired. Flight arrangements were made for participating personnel. Military action in Iraq necessitated cancellation of this training (providers were simply not able to attend due to deployments at their bases) resulting in a substantial loss of funds for the project as well as delayed implementation. Military action and subsequent disruption of this project necessitated a revised Statement of Work (SOW), which was negotiated with the Project Officer, Sherry Ward and approved. This revised SOW (Appendix A) and the following narrative relates to the amended SOW.

In consultation with the AF Surgeon General's Office, a decision was made to go forward with a second scheduled training in July of 2003, to be held after the AF Worldwide Substance Abuse Conference, and at the same site (San Diego) to optimize attendance by behavioral health providers. We anticipated that recruitment would be slow, given feedback from our potential subjects stating an inability to enroll due to deployments at their bases, but we wished to take advantage of the site and attendance at this conference. The training took place July 18-21, with 14 providers completing (eight subjects in the self-training condition received instructional materials). The second training for this study has been scheduled for October 27-29, 2003 in Santa Fe, New Mexico. A hotel contract has been issued for that workshop. A third training is to be held in January in Albuquerque.

To date, 63 subjects have been enrolled in the study (meaning a signed and returned ICD document), with 24 entering the self-trained condition, 19 in the workshop only condition and 20 in the workshop plus enrichment condition. This recruitment is substantially below that expected for completion of the study. We attribute this poor recruitment rate to two factors: 1) military action in Iraq, which has resulted in lower staffing and manpower at many bases with subsequent reassignment of personnel to other duties and reluctance of program managers to release personnel for attending optional workshops and 2) difficulty disseminating information about the project in a user-friendly manner. Several steps have been taken to address the problem of getting information to the appropriate recipients regarding the availability of this training. A program of slides and concise information (e.g. a "talker") was sent to 100% of Airstaff leadership, ADAPT Program Managers and MAJCOMM leaders to facilitate recruitment. Each of these individuals was contacted directly by phone from the Research Coordinator in the Surgeon General's office (Karin Cedro). Eight of these individuals requested follow up materials and received the MI book and training tapes so they could familiarize themselves with MI. Potential subjects have also been contacted directly by our staff (once approval was obtained from the base commander and program manager) and over 275 behavioral health providers have received direct communication (via e-mail and phone) about this study.

Reliability Data for Coding System: The previous coding system for this study, as expected, proved too unreliable to use with the therapy tapes generated by behavioral health providers. The Motivational Interviewing Treatment Integrity (MITI) Coding system for this study was therefore chosen instead. Using data from a previous training project (Miller, Yahne, Moyers, Martinez & Pirritano, 2003), intraclass correlations were calculated to insure sufficient reliability for this project. These correlations are listed below in table format. These reliabilities are within the good to excellent range (Cicchetti, 1994), indicating appropriate precision for this research project.

	All Coders	JK and MG		JK and TT		MG and TT	
	ICC	Pearson	ICC	Pearson	ICC	Pearson	ICC
Empathy	.5184	.7175	.6567	.4754	.4589	.4220	.4166
Spirit	.5846	.6543	.6543	.4861	.4860	.6117	.6115
General Information	.7580	.7544	.7531	.7306	.7303	.7927	.7923
MI Adherent	.8092	.8451	.8431	.7816	.7671	.8202	.8138
MI Non-adherent	.7505	.8408	.8402	.7315	.6806	.7418	.6998
Closed Question	.9681	.9791	.9781	.9772	.9743	.9588	.9515
Open Question	.9389	.9619	.9571	.9311	.9185	.9440	.9420
Simple Reflect	.8126	.8396	.8240	.8094	.8079	.8133	.8061
Complex Reflect	.5764	.7187	.6542	.6325	.6276	.5154	.4427
Total Reflect	.8592	.8970	.8641	.8646	.8646	.8784	.8474

N = 50

Tape Coding: Forty seven audiotapes (baseline therapy tapes) have been received from project participants and coded using the MITI system.

KEY RESEARCH ACCOMPLISHMENTS

- 100% of Airstaff leadership, ADAPT program managers and MAJCOM leaders contacted in person and provided materials explaining project
- 60 of 80 base commander letters of support returned, allowing participation of behavioral health providers in study
- 273 behavioral health providers contacted via e-mail and phone for recruitment
- 70 information packets including books and tapes sent to base commanders and program managers
- coding system revised and pilot-tested for use with AF behavioral health providers
- reliabilities calculated with double-coded sample of 50 tapes from similar research project
- 47 tapes coded
- 63 behavioral health providers enrolled in project
- 14 behavioral health providers trained
- self-training material sent to 8 behavioral health providers
- second training scheduled for October, 2003; hotel contract issued
- 3 follow-up phone consults completed

REPORTABLE OUTCOMES

A manuscript is in preparation regarding the reliability data obtained for the Motivational Interviewing Treatment (MITI) Coding System.

CONCLUSIONS

Conclusions for this study await further data analysis.

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APPENDIX COVER SHEET

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APPENDIX A

Statement of Work

Year One

Year One of this grant will focus initiating the informed consent process in three institutions: 1) The University of New Mexico, 2) The US Army Medical Research and Material Command (Ft. Detrick) and the 3) Wilford Hall Medical Center Human Subject's Review Board. 4) Equipment and office supplies will be purchased. 5) The Sequential Coding System for Process Evaluation (SCOPE) instrument will be completed and pilot-testing of this instrument will begin. 6) Three coders will be hired and trained to use the SCOPE instrument. 7) Bar-coding technology will be in place to scan and electronically catalog confidential tapes.

Year One: Seven deliverables

Year Two

Year Two of this grant will focus on 1) completion of the IRB process at the three institutions above. By the middle of Year Two, 2) approval will be obtained for recruitment at 80 Air Force bases worldwide using a single IRB as an oversight board, representing the first time this has ever been accomplished for a behavioral health protocol. 3) Letters of agreement from 15 Bases Commanders, Military Group Commanders and ADAPT Coordinators will be signed. 4) Staffing for the AF Surgeon General's Office will be complete and all supplies and equipment necessary to recruit and receive tapes through that office will be completed. By May of the second year, 5) 90 participants (Wave One or half the total number) of subjects will be recruited and one workshop training of 60 participants will be completed. 6) Ninety baseline tapes and 60 post-training tapes will be received and logged into the system. 7) One hundred and ten tapes (110) will be coded using the SCOPE system, including all time-sensitive tapes needed for the feedback group (3). One hundred and eighty phone consults will be completed for Group 3.

Year Two: Seven deliverables

Year Three

Year Three of this grant will focus on 1) recruiting remaining 90 subjects for study and 2) training 60 providers from Groups 2 and 3 in Wave 2 Workshop and providing consult calls for the Group 3 members (180 consult calls). In addition 4) five hundred and forty (540) tapes will be received and logged and 4) three hundred and twenty tapes (320) will be coded using the SCOPE System. 5) Data input will begin for the main outcome variables.

Year Three: Five deliverables

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Year Four

Year Four will see 1) completed coding for the remaining 410 tapes using the SCOPE system. 2) Twelve month base incident data will now be harvested for all bases and a report will be prepared indicating those findings. 3) Effectiveness of training findings across groups for 12 months will be computed. 4) Computations for across base comparisons complete and final report issued.

Year Four: Four deliverables

Brief Project Timeline

Year 01

- Staff hired
- Human subject approval completed at University of New Mexico
- Human subject approval completed at Ft. Detrick
- Human subject approval initiated at Wilford Hall Medical Center
- Revision of MISC completed to include sequential coding (SCOPE)
- Confidential Tapes Management System with barcode scanner operational

Year 02

- Human subject approval completed at Wilford Hall Medical Center
- Base recruitment initiated
- Agreements signed for 15 bases: commanding officer, military group commander and ADAPT Coordinator
- Wave One workshop completed
- Feedback Tapes coded for Group 3 participants
- Enhanced Training Consults for Wave One Initiated

Year 03

- Enhanced Training Consults for Wave One Completed
- First 4 month (B) tapes coded for Wave One
- Wave 2 Workshop completed
- Enhanced Training Consults for Wave Two Initiated
- Baseline (B) and Proficiency (P) tapes for Wave One Coded
- Four month enrichment feedback for Wave 2
- First 8 month feedback tapes (C) are coded
- Baseline (B) and Proficiency (P) tapes coded for Wave Two partially coded

Year 04

- First 12 month tapes coded
- Baseline (B) and Proficiency (P) Tapes Completed
- Last 4 month tapes coded
- 12 month incident data available for Wave 1 bases
- Report of training findings through 4 months across groups
- Last 8 month tapes coded
- 12 month incident data available for Wave 2 bases
- Last 12 month tapes (D) coded
- Report of base findings through 12 months
- Final Report of findings through 12 months